

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-8. (Canceled)

9. (Currently Amended) ~~The method of claim 7~~ A method of producing a constructed fare that includes an arbitrary added to a published fare, said method executed in a computer system having memory and a persistent storage device, the method comprising:

preprocessing by:

determining interior cities that appear with gateway cities in arbitraries for an airline, the arbitraries being published amounts and an order set of two cities that extend published fares that include an amount for travel between two cities to provide a bi-directional market; and

searching a database having published fares for gateway cities corresponding to the determined interior cities appearing in the arbitraries; and

producing the constructed fare, by:

applying an arbitrary corresponding to one of the interior cities to a published fare involving one of the gateway cities that corresponds to the determined interior cities appearing in the arbitraries to produce a constructed fare; and

storing the constructed fare in memory or the persistent storage device of the computer system for use in travel planning, faring and/or pricing; and

wherein applying an arbitrary further comprises:
evaluating records from fare construction tables to determine whether the constructed fare is a valid constructed fare; and

wherein testing entries further comprises:

determining if an entry in a construction table was memoized before accessing the construction table; and

if the entry was memoized, retrieving an answer from a store of memoized entries to apply to the constructed fare.

10-19. (Canceled)

20. (Currently Amended) ~~The method of claim 19~~ A method of producing a set of constructed international fares for a particular airline, the method executed in a computer system and the method comprising:

preprocessing by:

determining interior cities that appear with gateway cities in arbitraries for the particular airline, arbitraries being published amounts and an ordered set of two cities that extend published fares that include an amount for travel between two cities to provide a bi-directional market; and

searching a database for gateway cities corresponding to the determined interior cities appearing in the arbitraries; and

producing the constructed fares by:

applying arbitraries corresponding to the determined interior cities to published fares involving the gateway cities that corresponds to the determined interior cities appearing in the arbitraries to produce the set of constructed fares for the airline; and

storing the constructed fares in memory or the persistent storage device of the computer system for use in a travel related activity; and

evaluating entries in fare construction tables to determine whether constructed fares in the set of constructed fares are valid constructed fares; and

returning the valid constructed fares as the set of constructed fares;

wherein evaluating entries further comprises:

determining if an entry in a fare construction table was memoized before accessing the fare construction table; and

if the entry was memoized, retrieving an answer from a store of memoized entries to apply to the constructed fare.

21-28. (Canceled)

29. (Currently Amended) The A computer program product of claim 28 residing on a computer readable medium, for producing constructed fares that includes an arbitrary added to a published fare, comprising instructions for causing a computer system to:

preprocess data to determine interior cities that appear with gateway cities in arbitraries for the airline, arbitraries being published amounts and an ordered set of two cities that extend published fares that include an amount for travel between two cities to provide a bi-directional market;

search for gateway cities corresponding to the determined interior cities appearing in the arbitraries;

produce the constructed fare by applying an arbitrary corresponding to one of the interior cities to a published fare involving one of the gateway cities that corresponds to the determined interior cities appearing in the arbitraries to produce the constructed fare; and

store the constructed fare in a computer readable medium for use in a travel related activity;

wherein instructions that cause a computer to apply arbitraries further comprises instructions that cause a computer to test entries in construction tables to determine whether the constructed fare is a valid constructed fare;

wherein instructions that cause a computer to test entries further comprises instructions that cause a computer to:

determine if an entry in a construction table was memoized before accessing the construction table; and

if the entry was memoized, retrieve an answer from a store of memoized entries to apply to the constructed fare.

30-40. (Canceled)

41. (Currently Amended) ~~The~~ A computer program product of claim 40 for producing a set of constructed international fares for an airline, the computer program product residing on a computer readable medium and comprising instructions that cause a computer to:

preprocess data by instructions to:

determine interior cities that appear with gateway cities in arbitraries for the airline, arbitraries being published amounts and an ordered set of two cities, that extend published fares that include an amount for travel between two cities to provide a bi-directional market;

search for gateway cities corresponding to the determined interior cities appearing in the arbitraries; and

produce fares by instructions to:

apply each arbitrary corresponding to each of the determined interior cities to published fares involving the gateway cities that corresponds to the determined interior cities appearing in the arbitraries to produce the set of constructed fares; and

store the constructed fares to a computer memory or persistent storage for use in a travel related activity; and

further comprising instructions that cause a computer to:

evaluate entries in fare construction tables to determine whether constructed fares in the set of constructed fares are valid constructed fares; and

return the valid constructed fares as the set of constructed fares;

wherein instructions that cause a computer to evaluate entries further comprises instructions that cause a computer to:

determine if an entry in a fare construction table was memoized before accessing the fare construction table; and

if the entry was memoized, retrieve an answer from a store of memoized entries to apply to the constructed fare.

42-55. (Canceled)